

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
9. (Canceled)
10. (Currently amended) A composition comprising an isolated bacterial strain that oxidizes ammonia to nitrite, wherein said bacterial strain comprises a nucleotide sequence set forth in a ~~sequence selected from the group consisting of SEQ ID NO:18, SEQ ID NO:19 and SEQ ID NO:20.~~
11. (Original) The composition of claim 10 wherein the composition is in a form selected from the group consisting of liquid, frozen, freeze-dried and powdered.
12. (Original) The composition of claim 10, wherein the composition is included in a polymer.
13. (Original) The composition of claim 12, wherein the polymer is selected from the group consisting of acrylamide, alginate, carrageenan, and combinations thereof.
14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Currently amended) A composition comprising a concentrated bacterial strain that oxidizes ammonia to nitrite, wherein the 16S rDNA of the bacterial strain has a nucleotide sequence ~~selected from the group consisting of:~~ a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:18, ~~a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:19 and a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:20.~~

18. (Currently amended) The composition of claim 17 wherein said bacterial strain has a 16S rDNA sequence which is identical to ~~a sequence selected from the group consisting of~~ SEQ ID NO:18, ~~SEQ ID NO:19 and SEQ ID NO:20.~~

19. (Original) The composition of claim 17, further comprising a microorganism selected from the group consisting of ammonia-oxidizing microorganisms, nitrite-oxidizing microorganisms, nitrate-reducing microorganisms, heterotrophic microorganisms, and combinations thereof.

20. (Canceled)

21. (Canceled)

22. (Currently amended) An isolated nucleic acid ~~selected from the group consisting of:~~ a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:18, ~~a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:19 and a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:20,~~ wherein the nucleic acid encodes function for oxidizing ammonia to nitrite.

23. (Currently amended) The isolated nucleic acid of claim 22 wherein said sequence is identical to ~~a sequence selected from the group consisting of~~ SEQ ID NO:18, ~~SEQ ID NO:19 and SEQ ID NO:20.~~

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Currently amended) A composition comprising a bacterial strain that oxidizes ammonia to nitrite including a nucleotide sequence as set forth in SEQ ID NO:18 and at least one other two bacterial strains that oxidizes ammonia to nitrite, wherein each of the at least one other two bacterial strains have has 16S rDNA including a nucleotide sequence independently selected from the group consisting of: a nucleotide sequence that has greater than 98% identity over the full length thereof to SEQ ID NO:3, a nucleotide sequence that has greater than 98% identity over the full length thereof to SEQ ID NO:4, a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:1, a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:2, a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:18, a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:19 and a nucleotide sequence that has at least 96% identity over the full length thereof to SEQ ID NO:20.

33. (Previously presented) The composition of claim 32, said composition comprising a bacterial strain with a 16S rDNA including a nucleotide sequence as set forth in SEQ ID NO:1, a bacterial strain with a 16S rDNA including a nucleotide sequence as set forth in SEQ ID NO:2, a bacterial strain with a 16S rDNA including a nucleotide sequence as set forth in SEQ ID NO:3, a bacterial strain with a 16S rDNA including a nucleotide sequence as set forth in SEQ ID NO:4, a bacterial strain with a 16S rDNA including a nucleotide sequence as set forth in SEQ ID NO:18, a bacterial strain with a 16S rDNA including a nucleotide sequence as set forth in SEQ ID

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NO:19 and a bacterial strain with a 16S rDNA including a nucleotide sequence as set forth in
SEQ ID NO:20.